

**WEST**[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)[Cases](#)**Search Results -**

Terms	Documents
chimeric same (limonene synthase or limonene synthetase)	3

US Patents Full-Text Database  
US Pre-Grant Publication Full-Text Database  
JPO Abstracts Database  
EPO Abstracts Database  
Derwent World Patents Index

Database: IBM Technical Disclosure Bulletins

Search:

L14

[Refine Search](#)[Recall Text](#)[Clear](#)**Search History**DATE: Friday, August 02, 2002 [Printable Copy](#) [Create Case](#)

**Set Name Query**

side by side

**Hit Count Set Name**

result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

<u>L14</u>	chimeric same (limonene synthase or limonene synthetase)	3	<u>L14</u>
<u>L13</u>	chimeric same (casbene synthase or casbene synthetase)	2	<u>L13</u>
<u>L12</u>	chimeric same (epiaritoloche synthase or epiaritoloche synthetase)	0	<u>L12</u>
<u>L11</u>	chimeric same (vetispiradiene synthase or vetispiradiene synthetase)	3	<u>L11</u>
<u>L10</u>	chimeric same (cadinene synthase or cadinene synthetase)	2	<u>L10</u>
<u>L9</u>	chimeric same (vetispiradiene synthase vetispiradiene synthetase)	0	<u>L9</u>
<u>L8</u>	chimeric same (epiaritoloche synthase epiaritoloche synthetase)	0	<u>L8</u>
<u>L7</u>	chimeric same (casbene synthase casbene synthetase)	0	<u>L7</u>
<u>L6</u>	chimeric same (limonene synthase limonene synthetase)	0	<u>L6</u>
<u>L5</u>	L4 and (geranyl diphosphate or farnesyl diphosphate or geranylgeranyl diphosphate)	3	<u>L5</u>
<u>L4</u>	chimeric same cyclase	51	<u>L4</u>
<u>L3</u>	chimeric same cyclase and \$10terpine	0	<u>L3</u>
<u>L2</u>	chimeric isoprenoid synth\$5	5	<u>L2</u>
<u>L1</u>	chiameric isoprenoid synth\$5	0	<u>L1</u>

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 3 of 3 returned.****1. Document ID: US 6342380 B1**

L14: Entry 1 of 3

File: USPT

US-PAT-NO: 6342380

DOCUMENT-IDENTIFIER: US 6342380 B1

TITLE: Germacrene C synthase gene of Lycopersicon esculentum

DATE-ISSUED: January 29, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Colby; Sheila M.	Sunnyvale	CA		
Crock; John E.	Moscow	ID		
Lemaux; Peggy G.	Moraga	CA		
Croteau; Rodney B.	Pullman	WA		

US-CL-CURRENT: 435/183; 435/419, 435/69.1, 536/23.2

## ABSTRACT:

Germacrene C synthase genes from Lycopersicon esculentum have been cloned and sequenced. Transgenic expression of germacrene C synthase in plants can result in beneficial and useful characteristics such as increased host resistance to pathogens and herbivores and altered flavor and odor profiles.

10 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[FullC](#) [Draw Desc](#) [Image](#)**2. Document ID: US 6072045 A**

L14: Entry 2 of 3

File: USPT

US-PAT-NO: 6072045

DOCUMENT-IDENTIFIER: US 6072045 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 536/23.1; 435/69.1, 435/69.7, 435/71.1, 536/23.4

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

10 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

RMIC	Draw Desc	Image
------	-----------	-------

### 3. Document ID: US 5824774 A

L14: Entry 3 of 3

File: USPT

US-PAT-NO: 5824774  
DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: October 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 530/350, 435/183, 435/252.1, 435/252.33, 435/320.1, 435/69.1, 435/69.7,  
435/71.1, 530/300, 530/324, 530/370, 530/371, 530/372, 530/373, 530/374, 530/375, 530/376,  
530/377, 530/378, 530/379, 536/23.1, 536/23.4, 536/23.6, 536/23.74

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

18 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

RMIC	Draw Desc	Image
------	-----------	-------

Generate Collection

Print

Terms	Documents
chimeric same (limonene synthase or limonene synthetase)	3

**Display Format:** -

[Change Format](#)

[Previous Page](#)

[Next Page](#)

**WEST**

Generate Collection

Print

**Search Results - Record(s) 1 through 5 of 5 returned.****1. Document ID: US 6072045 A**

L2: Entry 1 of 5

File: USPT

US-PAT-NO: 6072045

DOCUMENT-IDENTIFIER: US 6072045 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 536/23.1; 435/69.1, 435/69.7, 435/71.1, 536/23.4

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

10 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------	--------	------	-----------	-------

**2. Document ID: US 5824774 A**

L2: Entry 2 of 5

File: USPT

US-PAT-NO: 5824774

DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: October 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 530/350; 435/183, 435/252.1, 435/252.33, 435/320.1, 435/69.1, 435/69.7,

435/71.1, 530/300, 530/324, 530/370, 530/371, 530/372, 530/373, 530/374, 530/375, 530/376,  
530/377, 530/378, 530/379, 536/23.1, 536/23.4, 536/23.6, 536/23.74

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an assymetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

18 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

RMIC	Draw Desc	Image
------	-----------	-------

## 3. Document ID: US 5824774 A

L2: Entry 3 of 5

File: EPAB

Oct 20, 1998

PUB-NO: US005824774A

DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

PUBN-DATE: October 20, 1998

## INVENTOR-INFORMATION:

NAME

COUNTRY

CHAPPELL, JOSEPH

US

BACK, KYOUNGWHAN

US

INT-CL (IPC): C07 K 5/00; C07 K 7/00; C07 K 17/00EUR-CL (EPC): C12N009/00; C12N009/88, C12N015/82

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an assymetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

RMIC	Draw Desc	Image
------	-----------	-------

## 4. Document ID: WO 9738703 A1

L2: Entry 4 of 5

File: EPAB

Oct 23, 1997

PUB-NO: WO009738703A1

DOCUMENT-IDENTIFIER: WO 9738703 A1

TITLE: CHIMERIC ISOPRENOID SYNTHASES AND USES THEREOF

PUBN-DATE: October 23, 1997

## INVENTOR-INFORMATION:

NAME

COUNTRY

CHAPPELL, JOSEPH

BACK, KYOUNGWHAN

INT-CL (IPC): A61 K 38/00; C07 K 2/00; C07 K 4/00; C07 K 5/00; C07 K 7/00; C07 K 14/00; C07 K 16/00; C07 K 17/00; C07 K 1/00; C07 H 21/02; C07 H 21/00; C12 P 21/06; C12 P 21/02; C12 P 21/04; C12 N 9/00

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
------	-----------	-------

5. Document ID: KR 2000005385 A WO 9738703 A1 AU 9727264 A ZA 9703108 A US 5824774 A CZ 9803179 A3 EP 904095 A1 ES 2132046 T1 BR 9708650 A US 6072045 A JP 2000508899 W

L2: Entry 5 of 5

File: DWPI

Jan 25, 2000

DERWENT-ACC-NO: 1997-526199

DERWENT-WEEK: 200063

COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Chimeric isoprenoid synthase comprising domains from two different enzymes or with one domain in non-natural position - can be used to provide products, e.g. antitumour or antimicrobial agents, not produced by wild-type enzyme

INVENTOR: BACK, K; CHAPPELL, J

PRIORITY-DATA: 1996US-0631341 (April 12, 1996), 1998US-0134699 (August 14, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 2000005385 A	January 25, 2000		000	A61K038/00
WO 9738703 A1	October 23, 1997	E	046	A61K038/00
AU 9727264 A	November 7, 1997		000	A61K038/00
ZA 9703108 A	January 28, 1998		047	C12N000/00
US 5824774 A	October 20, 1998		000	C07K005/00
CZ 9803179 A3	February 17, 1999		000	C07K002/00
EP 904095 A1	March 31, 1999	E	000	A61K038/00
ES 2132046 T1	August 16, 1999		000	A61K038/00
BR 9708650 A	August 3, 1999		000	A61K038/00
US 6072045 A	June 6, 2000		000	C07H021/02
JP 2000508899 W	July 19, 2000		049	C12N015/09

INT-CL (IPC): A01 N 63/00; A61 K 31/01; A61 K 31/015; A61 K 38/00; A61 P 31/04; A61 P 31/10; A61 P 35/00; C07 C 0/00; C07 H 21/00; C07 H 21/02; C07 K 1/00; C07 K 2/00; C07 K 4/00; C07 K 5/00; C07 K 7/00; C07 K 14/00; C07 K 16/00; C07 K 17/00; C12 N 0/00; C12 N 1/21; C12 N 9/00; C12 N 15/09; C12 P 21/02; C12 P 21/04; C12 P 21/06; C12 N 1/21; C12 N 9/00; C12 R 1/19; C12 R 1/19

ABSTRACTED-PUB-NO: US 5824774A



## BASIC-ABSTRACT:

A new chimeric isoprenoid synthase (IS) polypeptide comprises two domains from different IS and can catalyse formation of isoprenoid reaction products (A) that are not produced in absence of the second domain (from a heterologous IS). Also new are: (1) DNA (I) encoding IS; (2) vectors or cells containing (I); (3) chimeric IS polypeptides including an asymmetrically positioned homologous domain able to produce (A) not produced when this domain is in its natural position.

USE - Chimeric IS are particularly used to produce (A) with antifungal, antibacterial or antitumour activities, but also insecticides, perfumes, antimalarial agents and flavours, including new macrocyclic compounds. (I) are used for production of recombinant IS.

ADVANTAGE - Chimeric IS make it possible to modulate IS activity so that synthesis reactions can be controlled, improving production of many mono-, di- and sesqui-terpenes.

ABSTRACTED-PUB-NO:

US 6072045A EQUIVALENT-ABSTRACTS:

A new chimeric isoprenoid synthase (IS) polypeptide comprises two domains from different IS and can catalyse formation of isoprenoid reaction products (A) that are not produced in absence of the second domain (from a heterologous IS). Also new are: (1) DNA (I) encoding IS; (2) vectors or cells containing (I); (3) chimeric IS polypeptides including an asymmetrically positioned homologous domain able to produce (A) not produced when this domain is in its natural position.

USE - Chimeric IS are particularly used to produce (A) with antifungal, antibacterial or antitumour activities, but also insecticides, perfumes, antimalarial agents and flavours, including new macrocyclic compounds. (I) are used for production of recombinant IS.

ADVANTAGE - Chimeric IS make it possible to modulate IS activity so that synthesis reactions can be controlled, improving production of many mono-, di- and sesqui-terpenes.

A new chimeric isoprenoid synthase (IS) polypeptide comprises two domains from different IS and can catalyse formation of isoprenoid reaction products (A) that are not produced in absence of the second domain (from a heterologous IS). Also new are: (1) DNA (I) encoding IS; (2) vectors or cells containing (I); (3) chimeric IS polypeptides including an asymmetrically positioned homologous domain able to produce (A) not produced when this domain is in its natural position.

USE - Chimeric IS are particularly used to produce (A) with antifungal, antibacterial or antitumour activities, but also insecticides, perfumes, antimalarial agents and flavours, including new macrocyclic compounds. (I) are used for production of recombinant IS.

ADVANTAGE - Chimeric IS make it possible to modulate IS activity so that synthesis reactions can be controlled, improving production of many mono-, di- and sesqui-terpenes.

WO 9738703A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

Full	Draw Desc	Image
------	-----------	-------

Generate Collection

Print

Terms	Documents
chimeric isoprenoid synth\$5	5

Display Format: -

Change Format

[Previous Page](#)

[Next Page](#)

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 3 of 3 returned.****1. Document ID: US 6372479 B1**

L5: Entry 1 of 3

File: USPT

US-PAT-NO: 6372479

DOCUMENT-IDENTIFIER: US 6372479 B1

TITLE: *Fusarium sporotrichioides* strains for production of B-carotene

DATE-ISSUED: April 16, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; James D.	Chicago	IL		
Hohn; Thomas M.	Chapel Hill	NC		
Leathers; Timothy D.	Peoria	IL		

US-CL-CURRENT: 435/252.3; 435/254.7, 435/320.1, 435/41, 435/471, 435/69.1, 536/23.1

## ABSTRACT:

The instant invention is drawn towards transformed strains of *Fusarium sporotrichioides* effective for the production of B-carotene. The transformed strains comprise an expression cassette having four genes encoding, respectively, geranylgeranyl-pyrophosphate synthase, phytoene synthase, phytoene desaturase and lycopene cyclase (i.e. Tri5crtE, Tri5crtB, TriScrtI and CrtY). The transformed strains of *Fusarium sporotrichioides* of the instant invention produce B-carotene at levels of up to 3-4 milligrams per gram of fungus (dry weight).

1 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[Full](#) [Draw Desc](#) [Image](#)**2. Document ID: US 6184000 B1**

L5: Entry 2 of 3

File: USPT

US-PAT-NO: 6184000

DOCUMENT-IDENTIFIER: US 6184000 B1

TITLE: System for the sequential, directional cloning of multiple DNA sequences

DATE-ISSUED: February 6, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; James D.	Chicago	IL		
Hohn; Thomas M.	Chapel Hill	NC		
Leathers; Timothy D.	Peoria	IL		

US-CL-CURRENT: 435/91.41

## ABSTRACT:

A method which combines the use of polymerase chain reaction (PCR) or oligonucleotide linkers and restriction enzymes which cleave degenerate or variable recognition site sequences to allow the cloning of multiple DNA sequences into a vector is disclosed. In this invention, a plurality of unrelated DNA sequences may be directionally cloned within a single vector by adding onto the ends of the sequences, restriction sites with specific sequences which are cleaved by corresponding restriction endonucleases which recognize degenerate or variable recognition sites and which generate cohesive ends upon cleavage. The compatibility (or ability to anneal) of the cohesive ends on different DNA sequences is controlled by the choice of the nucleotide sequence within the recognition sequences of the restriction endonucleases, allowing the DNA sequences to be inserted or joined in any desired orientation. These restriction sites may be selectively incorporated onto either or both end of any DNA sequence of interest using oligonucleotidelinkers or using PCR by adding the restriction sites onto the termini of the 5' and/or 3' primers.

27 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
------	-----------	-------

## 3. Document ID: US 5744341 A

L5: Entry 3 of 3

File: USPT

US-PAT-NO: 5744341

DOCUMENT-IDENTIFIER: US 5744341 A

TITLE: Genes of carotenoid biosynthesis and metabolism and a system for screening for such genes

DATE-ISSUED: April 28, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cunningham, Jr.; Francis X.	Chevy Chase	MD		
Sun; Zairen	Hyattsville	MD		

US-CL-CURRENT: 435/189; 435/252.3, 435/254.11, 435/320.1, 435/325, 536/23.2

## ABSTRACT:

The present invention also describes the DNA sequence for eukaryotic genes encoding .epsilon. cyclase, isopentenyl pyrophosphate isomerase and .beta.-carotene hydroxylase as well as vectors containing the same and hosts transformed with said vectors. The present invention provides methods for controlling the ratio of various carotenoids in a host and for the production of novel carotenoid pigments. The present invention also provides a method for screening for eukaryotic genes encoding carotenoid biosynthesis.

7 Claims, 24 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
------	-----------	-------

Generate Collection

Print

Terms	Documents
L4 and (geranyl diphosphate or farnesyl diphosphate or geranylgeranyl diphosphate)	3

**Display Format:** -[Change Format](#)[Previous Page](#)[Next Page](#)

**WEST**

Generate Collection

Print

**Search Results - Record(s) 1 through 2 of 2 returned.****1. Document ID: US 6072045 A**

L10: Entry 1 of 2

File: USPT

US-PAT-NO: 6072045

DOCUMENT-IDENTIFIER: US 6072045 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 536/23.1; 435/69.1, 435/69.7, 435/71.1, 536/23.4

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

10 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

Full	Draw Desc	Image
------	-----------	-------

**2. Document ID: US 5824774 A**

L10: Entry 2 of 2

File: USPT

US-PAT-NO: 5824774

DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: October 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 530/350; 435/183, 435/252.1, 435/252.33, 435/320.1, 435/69.1, 435/69.7,

435/71.1, 530/300, 530/324, 530/370, 530/371, 530/372, 530/373, 530/374, 530/375, 530/376,  
530/377, 530/378, 530/379, 536/23.1, 536/23.4, 536/23.6, 536/23.74

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an assymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

18 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

MMC	Draw Desc	Image
-----	-----------	-------

[Generate Collection](#)[Print](#)

Terms	Documents
chimeric same (cadinene synthase or cadinene synthetase)	2

**Display Format:** -[Change Format](#)[Previous Page](#)[Next Page](#)

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 3 of 3 returned.****1. Document ID: US 6342380 B1**

L11: Entry 1 of 3

File: USPT

US-PAT-NO: 6342380

DOCUMENT-IDENTIFIER: US 6342380 B1

TITLE: Germacrene C synthase gene of *Lycopersicon esculentum*

DATE-ISSUED: January 29, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Colby; Sheila M.	Sunnyvale	CA		
Crock; John E.	Moscow	ID		
Lemaux; Peggy G.	Moraga	CA		
Croteau; Rodney B.	Pullman	WA		

US-CL-CURRENT: 435/183; 435/419, 435/69.1, 536/23.2

## ABSTRACT:

Germacrene C synthase genes from *Lycopersicon esculentum* have been cloned and sequenced. Transgenic expression of germacrene C synthase in plants can result in beneficial and useful characteristics such as increased host resistance to pathogens and herbivores and altered flavor and odor profiles.

10 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[RPMC](#) [Draw Desc](#) [Image](#)**2. Document ID: US 6072045 A**

L11: Entry 2 of 3

File: USPT

US-PAT-NO: 6072045

DOCUMENT-IDENTIFIER: US 6072045 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 536/23.1; 435/69.1, 435/69.7, 435/71.1, 536/23.4

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

10 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

Full	Draw Desc	Image
------	-----------	-------

### 3. Document ID: US 5824774 A

L11: Entry 3 of 3

File: USPT

US-PAT-NO: 5824774  
DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: October 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 530/350, 435/183, 435/252.1, 435/252.33, 435/320.1, 435/69.1, 435/69.7,  
435/71.1, 530/300, 530/324, 530/370, 530/371, 530/372, 530/373, 530/374, 530/375, 530/376,  
530/377, 530/378, 530/379, 536/23.1, 536/23.4, 536/23.6, 536/23.74

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

18 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

Full	Draw Desc	Image
------	-----------	-------

Generate Collection

Print

## Terms

## Documents

chimeric same (vetispiradiene synthase or vetispiradiene synthetase)

3



**Display Format:** -

[Change Format](#)

[Previous Page](#)

[Next Page](#)

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 2 of 2 returned.****1. Document ID: US 6072045 A**

L13: Entry 1 of 2

File: USPT

US-PAT-NO: 6072045

DOCUMENT-IDENTIFIER: US 6072045 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: June 6, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 536/23.1; 435/69.1, 435/69.7, 435/71.1, 536/23.4

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an asymmetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

10 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
------	-----------	-------

**2. Document ID: US 5824774 A**

L13: Entry 2 of 2

File: USPT

US-PAT-NO: 5824774

DOCUMENT-IDENTIFIER: US 5824774 A

TITLE: Chimeric isoprenoid synthases and uses thereof

DATE-ISSUED: October 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chappell; Joseph	Lexington	KY		
Back; Kyoungwhan	Lexington	KY		

US-CL-CURRENT: 530/350; 435/183, 435/252.1, 435/252.33, 435/320.1, 435/69.1, 435/69.7,

435/71.1, 530/300, 530/324, 530/370, 530/371, 530/372, 530/373, 530/374, 530/375, 530/376,  
530/377, 530/378, 530/379, 536/23.1, 536/23.4, 536/23.6, 536/23.74

## ABSTRACT:

Disclosed is a chimeric isoprenoid synthase polypeptide including a first domain from a first isoprenoid synthase joined to a second domain from a second, heterologous isoprenoid synthase, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced in the absence of the second domain of the second, heterologous isoprenoid synthase. Also disclosed is a chimeric isoprenoid synthase polypeptide including an assymetrically positioned homologous domain, whereby the chimeric isoprenoid synthase is capable of catalyzing the production of isoprenoid reaction products that are not produced when the domain is positioned at its naturally-occurring site in the isoprenoid synthase polypeptide.

18 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

Full	Draw Desc	Image
------	-----------	-------

[Generate Collection](#)[Print](#)

Terms	Documents
chimeric same (casbene synthase or casbene synthetase)	2

**Display Format:** -[Change Format](#)[Previous Page](#)[Next Page](#)